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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,890

03/17/2004

John K. Junkers

2839

4635

7590

09/15/2006

STRIKER, STRIKER & STENBY
103 East Neck Road Huntington
Huntington, NY 11743

EXAMINER

MITCHELL, KATHERINE W

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,890

Applicant(s)

JUNKERS, JOHN K.

Examiner

Katherine W. Mitchell

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/10/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Clarifications

1. Based on applicant's amendment of 7/18/2006, examiner notes that applicant is indeed invoking 112 6th paragraph in claiming the 1st, 2nd, and 3rd "means for". The specification discloses the first means as a thread on the inner surface of the washer corresponding to a thread on the bolt. The specification discloses the 2nd and 3rd means as providing a surface that is roughened or smoothed respectively by machining, or provided with a friction increasing or decreasing, respectively, coating. If examiner is incorrect in this assessment, applicant should advise.

Claim Objections

2. Claims 1 and 9 are objected to because of the following informalities:
There is a minor typing or printing error in claim 1 line 10 and claim 9 line 11. The semi-colon required between "is turned" and "second means" is missing. Examiner reads the claim as though the semi-colon is present.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1--20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube USP 3728933 in view of Hlinsky USP 4362449.

Grube teaches a washer with a body having an axis and first and second axial outer facial surfaces. Further, the washer has an additional turning resistant surface adapted to cooperate with a bolt, said additional turning resistant surface providing friction between the body and bolt to impede the bolt from turning and allowing the bolt to be axially displaced when the nut is turned (abstract Figs 4-7, col 3 line 59 - col 5 line 58). Grube Figs 4-7 teach the assembly of a washer in combination with the bolt.

Regarding whether the washer is one or multiple elements, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have made the washer in one or multiple parts, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Fig 4-7 show the turning resistant surface connectable with a bolt thread.

Fig. 4-7 show the body movable in the axial direction, and with one portion provided with said additional turning resistant surface and another portion frictionally connected to said one portion and provided with said second face surface which is adapted to frictionally cooperate with the object (at 24/25).

A breaking point is shown in Figs 6-7, which when broken when the bolt is turned, elongates the bolt in the axial direction.

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SHEET 1 OF 2

FIG. 1

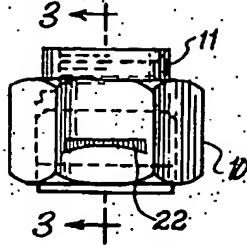


FIG. 2

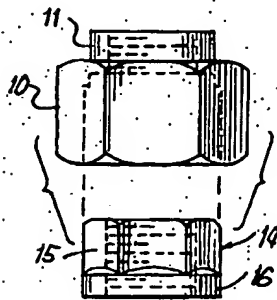


FIG. 3

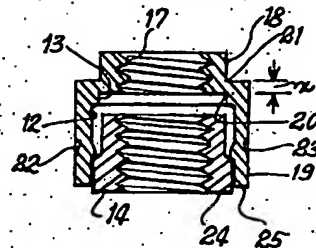


FIG. 4

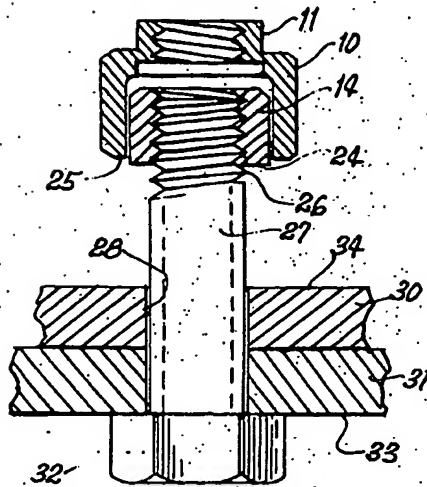


FIG. 5

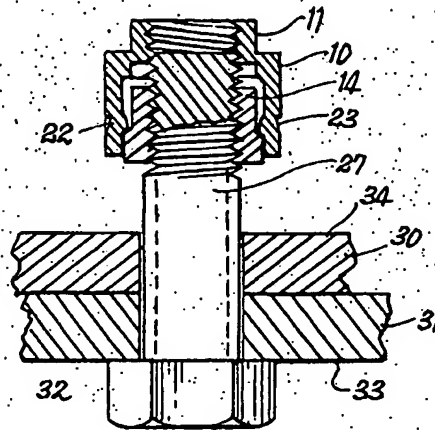


FIG. 6

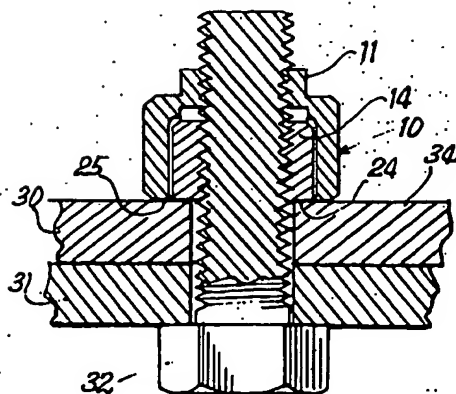
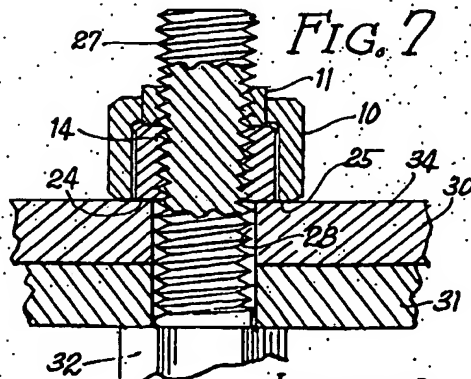


FIG. 7



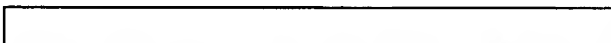
INVENTOR
William L. Grube
by Davis, Lucas, Brewer,
and Brugman Attys

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However, Grube does not teach that the first washer face surface, adapted to cooperate with the nut, has a smaller frictional characteristic than the second washer face surface, adapted to cooperate with the object to be assembled.

First, examiner notes that claims 1-8 do not include the bolt or nut, and the washer stands alone, and thus either face can be considered the first or second face of the washer and either part 11, part 14, or the combination can be considered the washer. It is possible to add another lock nut onto the protruding shaft end 27, which is all the claims require.

Hlinsky teaches in Fig 8 and col 7 lines 30-46 that a washer can have different frictional characteristics on different facial surfaces, and can be used to thus prevent the washer from turning when the fastener body is being tightened. Note that the abstract teaches:

 A body of low friction plastic material may be interposed between the bearing surfaces to prevent large frictional forces at the bearing surfaces, and the clamp surface may be scored or roughened to prevent low friction forces at the workpiece.

which clearly has the outer faces of different frictional characteristics than the body itself.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Grube and Hlinsky before him at the time the invention was made, to modify Grube as taught by Hlinsky to include different frictional properties of the washer facial surfaces of Hlinsky, in order to obtain better gripping between the washer and the object/substrate, and lower gripping between the washer and the nut, so that easier and

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more effective bolt/nut tightening and bolt elongation will occur. One would have been motivated to make such a combination because better connections with less work will be obtained.

Response to Arguments

5. Applicant's arguments filed 7/18/2006 have been fully considered but they are not persuasive.

Examiner agrees that neither Grube not Hlinsky teaches the claimed invention singly, but the combination of the two make obvious those structural and ability to perform functionality limitations claimed.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims require only an increased resistance to turning as the 1st means for providing increased resistance to turning between the bolt threads and washer radially inner surface. The additional friction of any threaded engagement will inevitably increase the resistance to turning.

In response to applicant's argument that Hlinsky is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if

not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the problem being addressed is the same -- designing fasteners to have mating surfaces with different frictional characteristics.

Examiner does not see any structure in the claims that reads over structure in the references, and thus must assume that in order for applicant's invention to be enabled, the structures perform similarly. However, examiner does note that applicant's specification discloses that a specific power tool usable with the invention is disclosed. If there is some novel interacting structure with the tool and fastener/washer, this could possibly be incorporated to result in allowable subject matter. Also, details of the resistive point structure should be considered. Another possible area of patentability is the description of the washer structure:

[0019] As can be seen from FIG. 1, the body 2 of the washer 1 is composed of two parts 7 and 8 located substantially radially adjacent to one another, so that the part 7 is located radially inwardly of the part 8. The surface 5 with the thread 6 which impedes the turning of the bolt is provided radially inwardly of the part 7. The part 8 has a projection 9 which is located above the part 7 and prevents an axial upward displacement of the part 7. The projection 9 of the part 8 forms a resistive point, which in this embodiment is formed as a breaking point. In particular, the projection 9 is designed so that it can break under the action of a certain force acting in an axial upward direction.

Examiner notes that applicant's invention clearly has only the inner portion of the washer with threads to contact the bolt -- i.e., only portion 7 has internally threaded bore. It appears to examiner that portion 8 is not threaded, and should not/could not be threaded. It appears this correlates to a structure with the first face at an axial end that

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is unthreaded, and the 2nd face at an axial end having internal threads. Grube's structure requires both portions to be internally threaded to work, and this may be an area of patentability where structure can define over Grube. Note that examiner has not searched this limitation specifically, but does not find in the cited art of record.

Applicant is invited to discuss options with examiner.

Conclusion

6. This is a continuing examination of applicant's earlier application. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

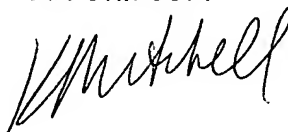
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Katherine W Mitchell
Primary Examiner
Art Unit 3677



Kwm
8/21/2006

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REPLACEMENT SHEET

OK Yainter
KLM
8/24/06

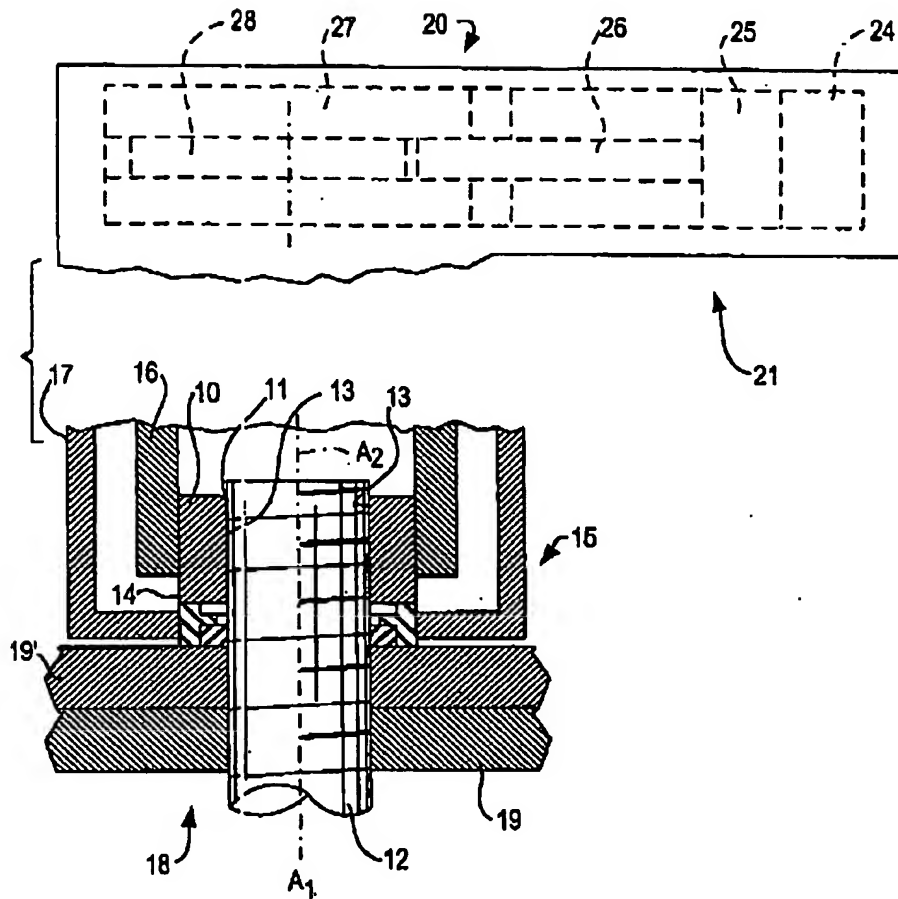


FIG. 2